

REMARKS

None of the claims have been amended or cancelled. Claims 1-7, 9-16, 23-33, 41-43 and 47-49 are pending and under consideration. Claims 1-7, 9-16, 23-33 and 41-43 have been allowed. Claims 1, 41, 43 and 47 are the independent claims. No new matter is presented in this Amendment.

REJECTIONS UNDER 35 U.S.C. §103:

Claims 47-49 are rejected under 35 U.S.C. §103(a) as being unpatentable over ECMA-267 120mm DVD Read Only Disk and Sensyu (U.S. Patent 6,125,100).

Applicants respectfully traverse this rejection for at least the following reasons.

Regarding the rejection of independent claim 47, it is noted that claim 47 recites a data scrambler comprising a random data generator which generates random data using 32KB and which scrambles data having structure of 2 KB for a sector or a data frame and 64KB for an ECC block, and a scrambling circuit which scrambles the generated random data and outputs scrambled data in units of bytes.

Applicants respectfully assert that the combination of ECMA-267 and Sensyu fails to disclose each of these features.

In detail the Office Action recognizes that ECMA-267 fails to disclose the features of a random data generator which generates random data using 32KB and which scrambles data having structure of 2 KB for a sector or a data frame and 64KB for an ECC block, and relies on Sensyu for such a teaching.

Sensyu discloses an optical disc having an improved error correction capability without increasing redundancy in error correction (column 2, lines 7-10). To do so, Sensyu discloses increasing the ECC block size to a size corresponding or substantially corresponding to an entire track (column 2, lines 31-34). In other words, Sensyu merely discloses increasing ECC block size for improving error correction performance, but does not teach random data cycle.

Furthermore, Sensyu discloses that in a digital video disc standard, approximately 1.8 encoding blocks can be recorded in the innermost rim of the disc. However, Sensyu discloses that it is preferable to have a disc having a recording density such that not less than 2 encoding

blocks can be recorded in the innermost portion of the disc (column 8, lines 15-20). Sensyu recognizes that the result of having 2 encoding blocks results in 65025 bytes which is smaller than 64KB since $64KB=65536$, and since the product cannot be made larger than 64KB which is the data volume of the encoding block, the ECC block size cannot be increased without failing suitable measures (column 8, lines 21-32). Therefore, Sensyu discloses that the ECC block is constituted from two codes of the format of, for example, the digital video disc standard and interleaved on the symbol basis (column 8, lines 33-36).

In other words, Sensyu teaches away from using 64KB for an ECC block since in the first alternative, the product is smaller than 64KB and in the second alternative, an ECC block larger than 64KB would fail suitable measures. Furthermore, as noted above, Sensyu merely discloses increasing ECC block size for improving error correction performance, but does not teach random data cycle.

Therefore, Applicants respectfully note that the reasoning of the Examiner to combine ECMA-267 with Sensyu appears to be incomplete since no explanation is provided as to what relationship exists between increasing the ECC block size to increase the error correction capability and a random generator which generates random data using 32Kb and which scrambles data having a structure of 2KB for a sector or a data frame and 64kB for an ECC block.

Therefore, applicants respectfully assert that the combination of ECMA-267 and Sensyu does not disclose or suggest the features of the claimed invention. Thus, the rejection of claim 47 is traversed.

Regarding the rejections of claims 48 and 49, it is noted that these claims depend from claim 47. Thus, the rejections of these claims are traversed for at least the reasons set forth above.

CONCLUSION:

There being no further outstanding objections or rejections, it is submitted that the application is in condition for allowance. An early action to that effect is courteously solicited.

Finally, if there are any formal matters remaining after this response, the Examiner is requested to telephone the undersigned to attend to these matters.

If there are any additional fees associated with filing of this Amendment, please charge the same to our Deposit Account No. 503333.

Respectfully submitted,

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